

Claims

1. A system for competitively allocating video and/or audio resources of a server comprising:

5 a server receiving and processing at least one of video and audio information and producing at least one output, all outputs of the server together not exceeding resources of the server in terms of at least one of a maximum frame rate, a maximum resolution, and a maximum bit rate, the server including a bid table for recording client bids and an auction thread for evaluating competing client bids with regard to resources requested and price;

a network connected to the server; and

10 a plurality of clients connectable to the network and requesting, from time-to-time, access to the at least one of video and audio information and specifying desired resources including at least one of frame rate, resolution, and bit rate, and a bid price for the resources specified, the server responding to each client request by

establishing a server thread for each client for supplying requested video and/or audio information,

20 ordering the bids in the bid table according to a priority based on price and desired resources specified, and

through the auction thread, by allocating resources requested by clients supplying bids in a decreasing order of the priority until all of the resources have been allocated to clients specifying desired resources and a bid price.

2. The system according to claim 1 wherein the client supplying the highest bid price is given highest priority to the resources and before resource allocations to other clients.

5 3. The system according to claim 1 wherein the client supplying the bid having the highest product of bid price and desired resources is given highest priority to the resources and before resource allocations to other clients.

10 4. The system according to claim 1 wherein the bid table is updated in response to new and changed bids from clients, and the auction thread reassigns the resources available in response to each update of the bid table.

15 5. The system according to claim 1 wherein the client supplies a bid variable in bid price and desired resources to obtain an allocation of resources at a minimum cost.

20 6. The system according to claim 5 wherein the client specifies a maximum price payable for allocated resources and foregoes resource allocation if all resources have been allocated at bid prices exceeding the maximum price.

7. The system according to claim 1 wherein a client specifies a bid price as a minimum bid price based upon available resources to ensure access to the video and/or audio information unless a maximum bid price is exceeded.

8. The system according to claim 1 wherein specified clients are always given highest priority and are supplied with requested resources regardless of bid price.